

Claims

[c1] **What is claimed is**

1. A control system that regulates the intensity of the final image at a constant level.

[c2] 2. The control system of claim 1, further comprising:

a diffraction grating

with spatially displaced color photo detectors

to detect the power levels of selected color components of the illuminator output as viewed by the user.

[c3] 3. The control system of claim 2, further comprising:

an array of color-radiating devices, e.g., LEDs, (Light Emitting Diodes),

whose outputs are merged with the illuminator output to maintain the respective spectra of the illuminator constant as viewed by the user.

[c4] 4. The control system of claim 3, further comprising:

the capability of equalizing the dual paths of a comparison bridge to eliminate any differences in color quality and intensity of the respective illuminators at the final point of viewing

[c5] 5. A microscope illuminator that can radiate power at any discrete color.